Transiliac wing alternate route bypass for infected groin vascular graft

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Groin infection after vascular reconstruction is one of the most severe complications, necessitating aggressive surgical therapy. Maintaining limb perfusion along with removal of an infected graft sometimes requires an unorthodox surgical solution. We describe such an unorthodox surgical approach, in which a new graft was routed from the infrarenal aorta to the anterior tibial artery through the iliac bone wing.

CASE REPORT

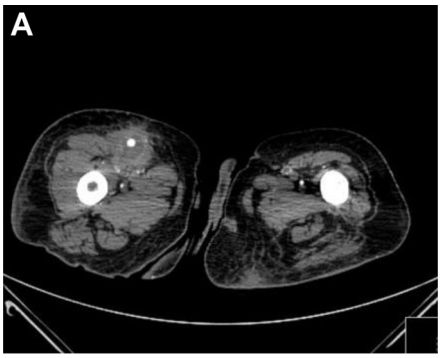
A 46-year-old woman presented to the emergency department with a right groin abscess, 1 month after a common femoral artery-to-anterior tibial artery polytetrafluoroethylene (PTFE) bypass. The bypass, via an extra-anatomic route, was done to relieve rest pain. The "cobra hood" of an old femoropopliteal, below-knee PTFE bypass, which had occluded recently, was used as the origin of the new graft.

A computed tomography angiography revealed a 4- × 8-cm nonhomogenous fluid collection, limited to the groin, surrounding the graft (*A*).

The distal part of the recently created femoral artery-to-anterior tibial artery bypass was used as the landing zone for a new 7-mm PTFE graft, which was anastomosed to the distal aorta through a retroperitoneal approach and then tunneled laterally through a 12-mm hole drilled in the right iliac wing bone to the densely incorporated distal segment (*B*). The infected parts of the graft were removed from the groin without complication.

The patient's postoperative course was uneventful, and she was discharged with palpable dorsalis pedis pulse and ankle-brachial index of 0.94. Antibiotics therapy (vancomycin and Tazocin; Wyeth Pharmaceuticals Inc, Collegeville, Pa) was given for 6 weeks.

The patient was seen in follow-up 1 year after the procedure, with no sign of infection and a well-functioning bypass.



DISCUSSION

Vascular graft infection in the groin area has potentially devastating consequences, mainly when synthetic grafts are used.[1] Intravenous antibiotic therapy is the initial phase of treatment, followed by an alternate route bypass and removal of the infected graft.

The transobturator foramen alternate route bypass is the most common bypass being used to treat groin infections.[2] A less attractive option is the axillo-deep femoral artery bypass. The least known alternative is the transiliac wing alternate route bypass, which allows one to land the new bypass on the lateral aspect of the thigh.[3-6] This unusual approach, which is feasible and quite easy to perform, should be kept in mind when dealing with infected bypasses to the anterior tibial artery.

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